

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Ben Markin

GENERAL INFORMATION:

Name:	Berea College
Address:	Rustic Road, CPO 2211, Berea, Kentucky 40404
Date application received:	12-15-04
SIC/Source description:	8221
Source I.D. #:	21-151-00006
Source A.I. #:	39053
Activity #:	APE20040003
Permit number:	V-03-005 Revision 1

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
<u>Administrative</u>	<input checked="" type="checkbox"/> Title V
<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Synthetic minor
<u>Significant</u>	<input checked="" type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input checked="" type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

#### EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM	7.0	7.0
SO <sub>2</sub>	207	207
NO <sub>x</sub>	86	86
CO	70.4	70.4
VOC	18.2	18.2
LEAD	0.07	0.07
HAP's	9	9

#### **CHANGES TO PERMIT (REVISION 1):-MINOR MODIFICATION:**

The Division on December 12, 2004 received a minor modification application for Berea College. The application is for construction of a fifty (50) mmBtu/hr natural gas fired auxiliary boiler (EU 05) to replace the two existing coal fired boilers [emission units 01 and 02], which have been decommissioned due to some mechanical deficiencies. Emission unit 01 has not been operational for number of years and is unlikely to be placed back into service, and emission unit 02 was taken out of service on April 14, 2004. For either of these decommissioned units (01 and 02) to operate, they would have to demonstrate compliance with the requirements of 401 KAR 50:015 and 401 KAR 50:016, and submit a request to operate to the Division for approval. The addition of the boiler does not trigger a prevention of significant deterioration (PSD) review for the facility, nor is it a significant modification under Title I of the Clean Air Act. In accordance with 40 CFR 52.21 and 401 KAR 51:005, the maximum potential emissions for all regulated pollutants from the proposed unit were calculated based on 8760 hours per year. Based on the evaluation, the future projected and the maximum potential emissions of the PSD regulated pollutants are below the Significant Emission Rate (SER) [401 KAR 51:001, Section 1(222)(a). Hazardous air pollutants (HAP) emissions from the unit are less than ten tons per year for a single and twenty-five tons per year for combined.

#### **Applicable Regulations to the new unit –EU 05**

401 KAR 59:015, new indirect heat exchangers applicable to an emissions unit with a capacity less than 250 mmBtu/hour, which commenced construction after April 9, 1972.

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, applicable to a steam generating unit with a capacity of less than 100 mmBtu/hr but greater than 10 mmBtu/hr which commenced on or after June 9, 1989.

The proposed auxiliary boiler will not be subject to the new maximum achievable control technology (MACT40) CFR 63, Subpart DDDDD, because the source is not major for HAP.

The coal-handling units listed under insignificant activities shall not be used or operated until the coal-fired boilers have been tested and are in compliance.

**SOURCE PROCESS DESCRIPTION:**

Berea College, located in Madison County, has applied for an operating permit for the operation of Indirect Heat Exchangers and Wood Surface Coating at their campus facilities. The College has two coal-fired boilers rated at 107.7 mmBtu/hr, and 71.8 mmBtu/hr respectively. A 52.4 mmBtu/hr Natural Gas unit is also located on the campus. Additionally, there is a surface coating operation, which applies lacquer and sealer to furniture. This initial source-wide TV permit will supersede the existing operating permit # O-84-142.